DETAILED ACTION

1. This Office action is responsive to applicant amendment filed on 3/8/10. Claims 78, 87 have been cancelled.

Response to Arguments

2. Applicant's arguments with respect to claim 77 and 86 have been considered but are moot in view of the new ground(s) of rejection.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required.
4. Claims 77 and 86 recite the limitation "wherein the MBMS identifier is configured by a Radio Resource Control (RRC) layer, but there is no antecedent basis for the claimed recitation in the specification as originally filed.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 77, 80-82, 86, 89 - 91 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a

way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Re claims 77 and 86, the claims include the limitation "wherein the MBMS identifier is configured by a Radio Resource Control (RRC) layer", and Applicant has not pointed out support for the limitation. Examiner points to page 5, line 15; page 8, lines 5 – 6; page 10, line 9 – page 11, line 5, where disclosures on RRC are made but there is no mention of RRC configuring the MBMS identifier. Applicant is invited to point to support for the newly added limitation. Consequently, Examiner considers Applicant was not in possession of the claimed invention at the time of the filing date.

Re claims 80 – 82, 89 – 91 are rejected for being dependent on rejected claims 77 or 86.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in **Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966)**, that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows: ***(See MPEP Ch. 2141)***

a. Determining the scope and contents of the prior art;
b. Ascertaining the differences between the prior art and the claims in issue;

c. Resolving the level of ordinary skill in the pertinent art; and
d. Evaluating evidence of secondary considerations for indicating obviousness or nonobviousness.

8. **Claims 77, 78, 80 – 82, 86 and 89 – 91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beckman et al., US Pub No. 20030035423 A1 in view of LG Electronics Inc, "RAN considerations on MBMS", TSG-RAN Working Group 2 Meeting #30, June, 2002 (henceforth "LG") and further in view of Sarkkinen et al., US Pub No. 20030211855 A1 and 3GPP, "Universal Mobile Telecommunication System (UMTS); Medium Access Control (MAC) protocol specification (3GPP TS 25.321 version 5.1.0 Release 5), June 2006 (henceforth 3GPP).**

Re claim **77**, Beckmann discloses a method for providing multicast service in a wireless communication system (see abstract), the method comprising

mapping at least one logical channel onto a transport channel (paragraph [10], logical channel which is also projected (mapped) onto a transport channel)

transmitting, to a user equipment (fig 3, ref MS), data of the at least one logical channel through the transport channel (paragraph [52], data which is sent over other logical channels can be sent over the same transport channel)

wherein the data is added with a header including a first identifier for identifying the at least one logical channel and a second identifier for identifying the multicast service (fig 2, paragraph [52], TCTF field indicates from which type of logic channel; paragraph [53], MC-ID contains information by which the multicast group can be identified)

wherein the second identifier is an MBMS (Multimedia Broadcast/Multicast Service) identifier (paragraph [53], MC-IS contains information by which the multicast group can be identified)

Beckman is silent on the second identifier being used to distinguish between MBMS services. LG in analogous art discloses the RAN consideration on MBMS. LG further discloses an MBMS RNTI for MBMS multicast mode used to identify a group of UE receiving a multicast service (see LG sec 2.3, clearly shows that the group identifier is used to distinguish services). it would therefore have been obvious to a person having ordinary skills in the art, at the time the invention was made, to incorporate the teaching of LG into the disclosure of Beckman to have the second identifier being used to distinguish between services so as allow the UE Mac identify received MBMS data (LG: sec 2.3)

Beckmann in view of LG discloses the claimed invention including that data packets for multicast are transmitted over a combination already used or known in data transmission system from a logical channel which is projected onto a transport channel (Beckmann: paragraph [10]) but is silent on the at least one logical channel comprises a MBMS point to multipoint traffic channel (MTCH) and the MTCH is mapped onto at least one transport channel. Sarkkinen in analogous art discloses a method for providing multicast service in a wireless communication system (see abstract, fig 1). Sarkkinen further discloses that the at least one logical channel comprises a MBMS point to multipoint traffic channel (MTCH) and being mapped onto at least one transport channel (paragraph 46,

the Multicast Traffic Channel (MTCH) ... which may be a Forward Access Channel (FACH)). It would therefore have been obvious to a person having ordinary skills in the art, at the time of the invention, to incorporate the teaching of Sarkkinen into the disclosure of Beckmann, using the known combination of MTCH and FACH disclosed by Sarkkinen in the system disclosed by Beckmann so as to separate multicast and broadcast related control plane from the user plane.

Beckmann in view of LG and further in view of Sarkkinen discloses that the at least one logical channel is located between a Radio Link Control (RLC) layer and a Medium Access Control (MAC) layer (Beckmann: fig 1, clearly shows the logical channel between the RLC and MAC; Sarkkinen: fig1, ref 126) and the transport channel is located between the MAC layer and a physical (PHY) layer (Beckmann: fig 1; Sarkkinen: fig 1, ref 130).

Beckmann in view of LG and further in view of Sarkkinen discloses the claimed invention including that coupling of the MAC layer to the FACH in accordance with the 3GPP specifications (Sarkkinen: paragraph [46]) but is silent on the MAC layer comprising a plurality of MAC sub layers.

3GPP in analogous art discloses a UMTS system. 3GPP further discloses that the MAC layer comprises a plurality of MAC sub-layers (page 8, sec 4.2.1, MAC-b, -c/sh, -d). It would therefore have been obvious to a person having ordinary skills in the art, at the time of the invention, to incorporate the disclosure of 3GPP into the system of Beckmann in view of LG and further in view of Sarkkinen to

have the MAC layer comprising a plurality of MAC sub-layers, so as to be in accordance with 3GPP specification (Sarkkinen: paragraph [46]).

Beckmann in view of LG and further in view of Sarkkinen and 3GPP discloses wherein each of the first identifier added by a MAC-c/sh that processes a common or shared data (3GPP: page 14, section 4.2.4.1, TCTF MUX)

wherein the MAC-c/sh layer further performs a scheduling function or a priority handling function (3GPP: page 14, section 4.2.4.1, scheduling)

Beckmann in view of LG and further in view of Sarkkinen and 3GPP discloses a second identifier (Beckmann: paragraph [53]), and LG discloses a new second identifier (sec 2.3). Since 3GPP handles RNTI in a similar way (page 23, CMAC-CONFIG-REG; page 24, section 8.3.2(a); page 28, UE-Id) and the UE id is added by the MAC-c/sh (page 14, section 4.2.4.1, IE id MUX) it would therefore be obvious to a person having ordinary skills in the art that the second identifier (MBMS RNTI) be added by the MAC-c/sh.

Beckmann in view of LG and further in view of Sarkkinen and 3GPP discloses wherein the first identifier is a Target Channel Type Field (TCTF) (Beckmann: fig 2, paragraph [51]) and the second identifier is a Multimedia Broadcast/Multicast Service Identifier (LG: section 2.3)

and wherein the MBMS identifier is configured by a Radio Resource Control (RRC) layer (3GPP: page 23, CMAC-CONFIG-Req)

The rejection of claim 77 is incorporated herein. Claim 80, 81 depend on claim 77 and only further limitations will be addressed below.

Re claim **80**, Beckmann in view of LG and further in view of Sarkkinen and 3GPP discloses wherein the MBMS identifier is an m-RNTI (MBMS radio network temporary identifier) (LG: sec 2.3, MBMS RNTI)

Re claim **81**, Beckmann in view of LG and further in view of Sarkkinen and 3GPP discloses a third identifier for distinguishing a type of the second identifier included in the header (Beckmann: fig 2, ref IE-id type, since LG has modified to reference UEs).

The rejection of claim 81 is incorporated herein. Claim 82 depends on claim 81 and only further limitations will be addressed below.

Re claim **82**, Beckmann in view of LG and further in view of Sarkkinen and 3GPP discloses that the third identifier is a UE ID type (fig 2).

Re claim **86**, the claim is the receiving part of the transmission carried out in claim 77. Beckmann discloses the transmission and receiving of the data (fig 1, fig 4). Claim 86 is therefore rejected for the same essential reasons as claim 77 above.

Re claim **89**, as applied to claim 86 above, it is essentially similar to claim 80 and is rejected for the same reasons as above.

Re claim **90**, as applied to claim 86 above, it is essentially similar to claim 81 and is rejected for the same reasons as above.

Re claim **91**, as applied to claim 90 above, it is essentially similar to claim 82 and is rejected for the same reasons as above.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

   A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to OPIRIBO GEORGEWILL whose telephone number is (571)270-7926. The examiner can normally be reached on Monday through Thursday, 9:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis G. West can be reached on (571)272-7859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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